

1. A method for representing to an application the characteristics of an underlying connection-oriented device over a known application-level interface and allowing an application to take advantage of a connection-oriented I/O subsystem having an integrating component over the known application-level interface and without requiring the application programmer to program directly to the integrating component, the method comprising:

representing to an application over a known application-level interface characteristics of an underlying connection-oriented device;

receiving at least one command in the known application-level interface format;

interacting with the integrating component of the connection-oriented I/O subsystem in order to represent underlying connection-oriented device characteristics over a known application-level interface and to execute received commands so that an application may take advantage of the connection-oriented I/O subsystem and use the connection-oriented device using the known application-level interface and without requiring the application programmer to program to a new interface.

2. A method as recited in claim 1 wherein the integrating component has a connection interface for making connections with underlying connection-oriented devices, and a data transport interface for interacting with a data transport component and the interacting with the integrating component comprises the steps of:

having data transport components interact with applications and the data transport interface;

sending, to the integrating component, instructions over the connection interface for directing data and data control information over a specified data transport component; and

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receiving, from the integrating component, an identifier that can be used by the application to access the data over the specified data transport component.

3. A method as recited in claim 2 wherein the integrating component implements a connection manager interface that may support a connection manager component and the data transport components interact with the integrating component over the connection manager interface to effectively register their respective data types so that a redirection command received over the application-level interface specifying a data type comprises the steps of interacting over the connection manager interface of the integrating component in order to determine the correct data transport component based on data type.

4. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 1.

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1 5. A connection-oriented driver subsystem where connection control information
2 is communicated to an application through one interface while data and data control
3 information is communicated through a transport driver, the driver subsystem comprising:
4 at least one simplified connection-oriented device driver controlling a
5 connection-oriented media device;
6 at least one data transport protocol driver capable of communication with an
7 application;
8 an integrating component that interfaces with the at least one simplified
9 connection-oriented device driver and the at least one data transport, said at least one
10 simplified device driver and said at least one data transport serving as clients to said
11 integration component and said integration component:
12 providing an abstracted connection interface that is available to a client that
13 allows a client to create a connection with a desired location using a media device
14 controlled by a simplified connection-oriented device driver; and
15 providing facility for associating a connection created by a client through the
16 connection interface with a data transport thereby allowing the client to send and
17 receive data and data control information over the previously established
18 connection; and
19 a proxy driver that interfaces with the connection interface and the transport
20 interface of the integration component as a client, said proxy driver:
21 receiving abstract connection creation and control commands from an
22 application and implementing such commands through appropriate use of the
23 connection interface to create and manage a connection;
24 causing redirection of data and data control information from the previously
25 created connection through the proxy driver to a designated transport designated
26 in an abstract connection control command; and

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returning to an application, in response to a previously received connection control command, an identifier to be used by the application for receiving data and data control information from the designated transport so that connection control information is communicated to the application through the proxy driver while data and data control information is communicated to the application through the designated transport.

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6. A subsystem as recited in claim 5 wherein the integrating component is incorporated as part of an operating system.

1 7. A computer program product for interacting with a known application-level
2 interface and an integrating component of a connection-oriented I/O subsystem in order to
3 represent the characteristics of an underlying connection-oriented device to an application
4 and allow an application to take advantage of the connection-oriented I/O subsystem over
5 the known application-level interface without requiring the application programmer to
6 program to a new interface, said computer program product comprising:

7 a computer-readable medium; and

8 computer-executable instructions carried on said computer-readable medium for
9 performing the steps of:

10 representing underlying connection-oriented devices and device
11 characteristics over a known application level interface;

12 receiving abstract connection creation and control commands from an
13 application over the known application-level interface;

14 interacting with the integrating component to ascertain the underlying
15 connection-oriented device and implement received connection creation and
16 control commands.

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18 8. A computer program product as recited in claim 7 further comprising computer-
19 executable instructions for performing the steps of:

20 receiving a connection creation command in the known application-level
21 interface format;

22 interacting with the integrating component to create the connection;

23 receiving a redirection command to send data and data control information
24 received over the connection to a designated data transport;

25 causing redirection of data and data control information from the previously
26 created connection to a designated transport; and

1 returning to the application an identifier to be used by the application for
2 receiving data and data control information from the designated transport.

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4 *sub*
5 9. A computer program product as recited in claim 8 wherein the data redirection
6 takes place in the integrating component.
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8 *a 3*